

ABSTRACT

Transcription of a gene associated with formation of floral organs is suppressed to produce a sterile plant. A plant cell is transfected with a chimeric gene that includes (i) a coding gene of a transcription factor that promotes expression of a gene associated with formation of floral organs, and (ii) a polynucleotide that encodes a functional peptide that converts an arbitrary transcription factor into a transcription repressor, and a chimeric protein in which the transcription factor is fused with the functional peptide is expressed in the plant cell. The expression of the gene associated with formation of floral organs is dominantly suppressed by the chimeric protein, and as a result a male sterile plant is produced that cannot properly form pollen. The chimeric protein also suppresses expression of a gene associated with dehiscence of anther, and as a result a plant is produced in which dehiscence of anther is suppressed. Further, the chimeric protein suppresses expression of target genes of a transcription factor associated with formation of stamen and pistil, and as a result a double flowered plant is produced.